

Challenges in Hypertension: The Haiti Experience

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THE CRITICAL IMPACT OF HYPERTENSION IN HAITI

The article in this issue of the *Journal of Clinical Hypertension* by John Kenerson¹ describes very well the enormity of the problem of hypertension in Haiti. It touches on the social, cultural, and environmental aspects of this problem and underscores its public health dimension.

The article can be considered as an overseas echo of the previous declaration expressed by us in a May 2013 article published in the oldest daily newspaper in Haiti, "Le Nouvelliste,"² under the title "Le cri assourdissant mais ignoré de l'hypertension artérielle en Haiti" (The Deafening But Ignored Cry of Hypertension in Haiti).

In July 2012, the Haiti Ministry of Health (MSPP) published a booklet, "Politique Nationale de Santé," describing the scope of health issues in Haiti. It defined clearly that hypertension is the greatest cause of morbidity and mortality in Haiti among adults, ahead of HIV, cholera, tuberculosis, and malaria combined. As pointed out by Dr Kenerson, the World Health Organization (WHO) describes Haiti as having a remarkably high prevalence and incidence of stroke or cerebrovascular accident: 176 of 100,000 as opposed to 82 of 100,000 in the Dominican Republic.³

Hypertension is the main risk factor for cardiac and renal diseases worldwide. In an ongoing heart failure research project at the Hopital Universitaire d'Etat d'Haiti (UEH), the main teaching hospital of the State University of Haiti, hypertension was identified as the primary cause of heart failure in 45% of patients and of peri-partum cardiomyopathy in 43%. These findings were reported in the "Journée académique du CHAMI" (Collège Haitien de Médecine Interne) in November 2012 and also at the 7th Annual Convention of the College Haitien de Cardiologie in May 2013 by Dr Rodolphe Malebranche, Physician in Chief of Internal Medicine at the Faculty of Medicine and Pharmacy School of Technology (FMP)-UEH, the State University Medical School established in 1818.

In September 2012, we conducted a randomized survey of patients in the Internal Medicine Service at HUEH and found that of patients admitted for whatever

reason (eg, abdominal pain, diarrhea, or anemia), 75% had hypertension as a concomitant diagnosis. Moreover, 80% of those patients had severe hypertension even though they were admitted for other reasons. Of great concern is the fact that the median age of those patients was only 43 years (Figure 1 and Figure 2).

THE PARADOX OF HYPERTENSION IN HAITI

Formerly recognized as the most prosperous of the French colonies for 3 centuries (1500–1800), called then "la perle des Antilles" (the Pearl of Antilles or the Caribbean), Haiti has been referred to as an agricultural land. Haiti produces large quantities of rice as well as a variety of fruits, vegetables, and grains such as almonds, peanuts, and cashews. Many of these products are elements of the Dietary Approaches to Stop Hypertension (DASH) diet⁴ recommended as hypertension therapy because of their high content of fiber, grains, and potassium.

In addition, Haitians typically walk long distances, an average of 10 km/d, to avoid the costs of transportation. So exercise is part of the routine lifestyle in Haiti, which, again, is in accord with lifestyle recommendations for the treatment of hypertension. Indeed, these factors may explain why Haitians have less coronary artery disease than expected.⁵

Given this picture of daily exercise and exposure to healthy fresh produce, it would be expected that Haitians would have a lower tendency to hypertension.

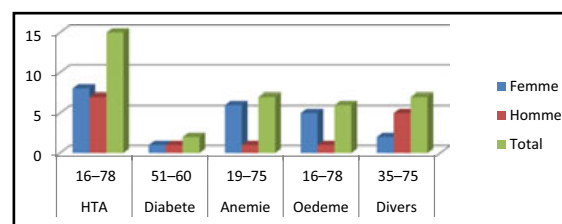


FIGURE 1. Numbers admitted and age range.

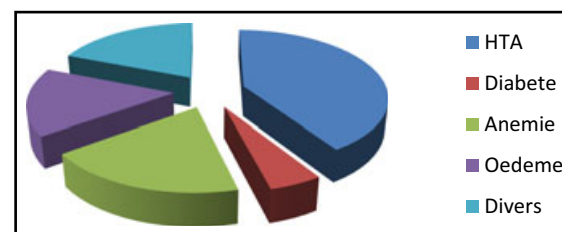


FIGURE 2. Cohort percentage.

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This is wishful thinking. The reality is that they have the highest prevalence of hypertension and stroke⁶ as pointed out by Dr Kenerson.

The main reason for this is the fact that Haitians consume an excessive amount of salt. According to estimates made by us, together with the heads of the nutrition department of the MSPP, Haitians consume 30 to 35 g of sodium (Na) daily in their diet.

This is in dramatic contrast to the 4 g recommended by WHO. Haitians eat nearly 9 times as much salt as is recommended! One serving of a bouillon cube, a staple of all Haitian cuisines, contains 2400 mg of Na. On average, a household will use 10 servings per day, or 24 g. Add to this other items rich in sodium such as tomato paste, rock salt, and butter and it is easy to reach 30 g to 35 g. We are currently conducting a study to document and measure the sodium content of food items in Haiti in different population groups.

ADDRESSING HYPERTENSION THROUGH EDUCATION

Because of the serious morbidity of hypertension, we have believe it is paramount to introduce a formal class on this subject at the State University Medical School of FMP-UEH. We have decided to adhere to the well-established standards of the American Society of Hypertension's educational programs. The classes will promote excellence in teaching and utilize evidence-based medicine. They will also stress social, cultural, and environmental conditions, as in "think globally, act locally," which is part of the colloquialism of "glocalism" explained in Dr Kenerson's article.

We have started to charter a specially designed course with the consent of Dr Jean Claude Cadet, the dean of the FMP-UEH. Beyond the didactic teaching we will add value in establishing a certification in blood pressure measurement. We intend to adhere to the recommendations of the writing committee of the Management of Hypertension in the Community Guidelines and to use this information as a basic curriculum. Many of these principles are already in effect in the Humanitarian Hypertension Clinic under the auspices of the Centre Haitien d'Hypertension, which also intends to develop an academic program for education and research and to offer training fellowships in hypertension.

We are grateful for the opportunity to change the sound of the wooden bell into that of a clarion. The important article by John Kenerson, a special friend of Haiti and Haitians, is a strong indication of our progress and commitment.

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